

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Truitt, Inc Examiner #: 69332 Date: 6/27/05
 Art Unit: 1711 Phone Number 302-681 Serial Number: 67807, 749
 Mail Box and Bldg/Room Location: 6071 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

General formula I in claim 1, specific formulas in claim 35. Checks

SCIENTIFIC REFERENCE BR
 Sci & Tech Inf. Ctr.
 OCT 27 REC'D
 Pat. & T.M. Office

STAFF USE ONLY		Type of Search	Vendors and cost where applicable
Searcher: <u>EL</u>	NA Sequence (#) _____	STN _____	
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____	
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____	
Date Searcher Picked Up: _____	Bibliographic _____	Dr. Link _____	
Date Completed: <u>11-1-05</u>	Litigation _____	Lexis/Nexis _____	
Searcher Prep & Review Time: _____	Fulltext _____	Sequence Systems _____	
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____	
Online Time: _____	Other _____	Other (specify) _____	

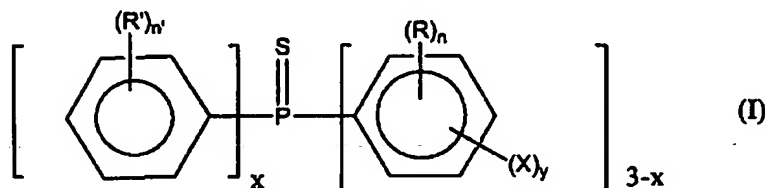
6/ 867,742

Listing of Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (original): A polymerizable composition comprising:

- a) at least one first polymerizable component further defined as a monomer having at least two functional groups, the functional groups further defined as cyanato, isocyanato, thiocyanato, isothiocyanato, (meth)acryloyl, thio(meth)acryloyl, and/or episulfide radicals, and
- b) at least one second polymerizable component further defined as:
 - i) thiophosphine monomers of formula:

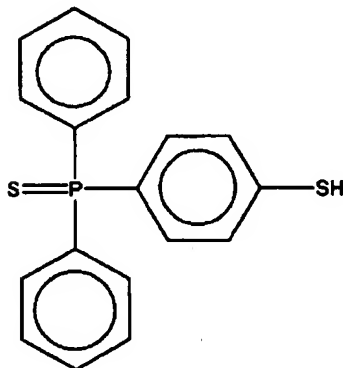
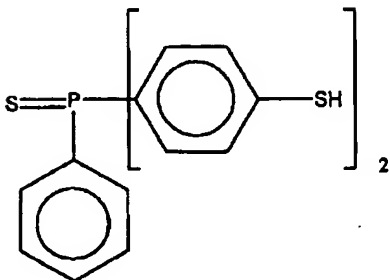
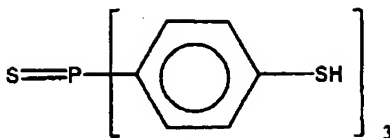


wherein X represents $-\text{SH}$ or $-\text{S}-\text{C}(=\text{O})-\text{C}(\text{R}_1)=\text{CH}_2$ with R_1 being H or $-\text{CH}_3$,

R and R' represent, independently from each other, an alkyl radical, an alkoxy radical or a phenyl radical which may be substituted with one or more alkyl and/or alkoxy groups, n is an integer from 0 to 4, n' is an integer from 0 to 5, x is an integer from 0 to 2; and y is an integer from 1 to 5 with the proviso that $y + n$ is an integer from 1 to 5; or

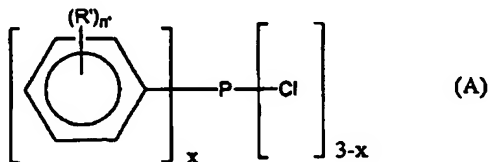
- ii) prepolymers resulting from the polymerization of at least one of said thiophosphine monomers of formula (I) and at least one of said first polymerizable component.

Claim 35



36. (original): A process for making the thiophosphine compound of claim 31, wherein y = 1, X is in para position with regard to phosphorus and represents —SH, which comprises the following steps:

a) reacting in the presence of a catalyst a component A of formula:



in which R', n' and x are defined as in claim 31 with a component B of formula:

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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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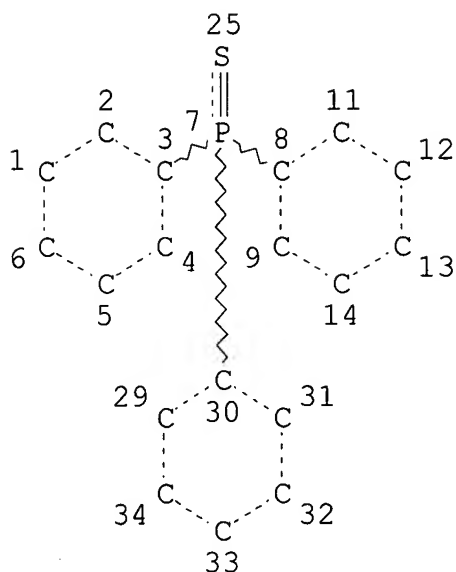
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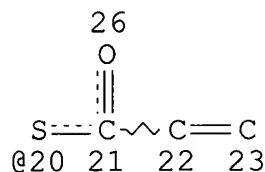
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G1 28

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 27

STEREO ATTRIBUTES: NONE
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8 ANSWERS

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L7 ANSWER 1 OF 3 ZCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2004:817898 ZCAPLUS
 DN 141:332611
 ED Entered STN: 07 Oct 2004
 TI Phosphine sulfides and polymerizable compositions containing phosphine sulfides
 IN Jallouli, Aref; Turshani, Yassin; Wanigatunga, Sirisoma; Rickwood, Martin
 PA Essilor International Compagnie Generale d'Optique, Fr.
 SO PCT Int. Appl., 43 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C07F009-02
 CC 35-2 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 29, 37, 63

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004085447	A2	20041007	WO 2004-EP3142	20040324

WO 2004085447 A3 20041111

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

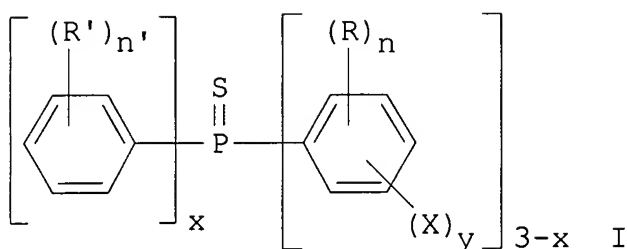
US 2005107579	A1	20050519	US 2004-807742	20040324
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PRAI US 2003-457042P P 20030324

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004085447	ICM	C07F009-02
WO 2004085447	ECLA	C07F009/50A4+M; C07F009/53A4+M; C08G075/08; C08G079/02; G02B001/04B2
US 2005107579	NCL	528/398.000

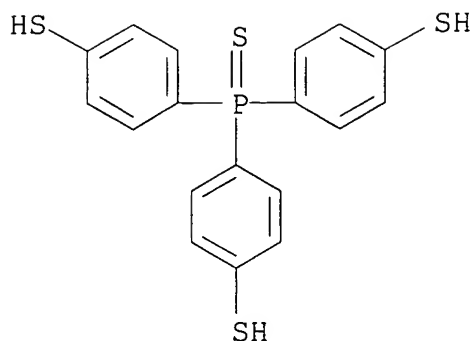
OS MARPAT 141:332611
GI



AB A polymerizable compn. comprises (a) at least one first polymerizable component selected from monomers having at least two functional groups selected from cyanato, isocyanato, thiocyanato, isothiocyanato, (meth)acryloyl, thio(meth)acryloyl, episulfide, and (b) at least one second polymerizable component selected from: (i) phosphine sulfide monomers of the formula (I), where X represents -SH or -S-C(O)-C(R1)=CH2 with R1 being H or -CH3, R and R' independently represent alkyl, alkoxy or Ph, optionally substituted with one or more alkyl and/or alkoxy groups, n is an integer from 0 to 4, n' is an integer from 0 to 5, x is an integer from 0 to 2, yr is an integer from 1 to 5, and the total of y and n is an integer from 1 to 5, and (ii) prepolymers resulting from polymn. of at least one of the phosphine sulfide monomers and at least one of the first polymerizable component, and preferably having a no.-av. mol. wt. from 1,000 to 10,000. The polymerizable compns. contg. phosphine sulfides provide optically transparent polymers useful in manufg. ophthalmic lenses having improved mech. and optical properties. Thus, n-butyllithium (2.5 M, 375 mL, 0.94 mol) in THF was added dropwise under nitrogen into 4-bromothioanisole (190.8 g, 0.94 mol) in anhyd. THF (750 mL), followed by cooling the mixt., adding dropwise a soln. of phosphorus trichloride (39.0 g, 0.28 mol) in anhyd. THF (100 mL), warming the mixt. to room temp., stirring for 52 h, quenching with water (500 mL), and extg. with di-Et ether to obtain tris(4-thioanisyl)phosphine in 30% yield. Tris(4-thioanisyl)phosphine (30.2 g, 0.075 mol) and elemental sulfur (2.4 g, 0.075 mol) were refluxed in anhyd. toluene (850 mL) under nitrogen for 20 h to obtain tris(4-thioanisyl)phosphine sulfide in 80% yield. A monomer, tris(4-thiophenyl)phosphine sulfide, was prepd. in 65% yield by refluxing tris(4-thioanisyl)phosphine sulfide (10.0 g, 0.023 mol) and sodium 2-methyl-2-propanethiolate (15.56 g, 0.139 mol) in anhyd. DMF (150 mL) under nitrogen for 24 h.

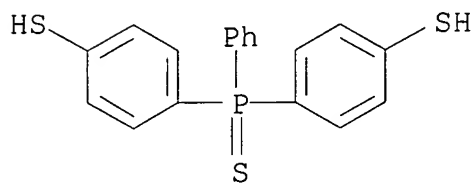
ST phosphine sulfide monomer polymerizable compn ophthalmic lens

- IT Eyeglass lenses
(from polymerizable compns. contg. phosphine sulfides)
- IT Molded plastics, uses
(from polymerizable compns. contg. phosphine sulfides)
- IT Polymerization
Transparent materials
(phosphine sulfides and polymerizable compns. contg. phosphine sulfides)
- IT Phosphines
(phosphine sulfides and polymerizable compns. contg. phosphine sulfides)
- IT Polyurethanes, preparation
(thio-, phosphine sulfide group-contg.; phosphine sulfides and polymerizable compns. contg. phosphine sulfides)
- IT 29949-80-2P, Tris(4-thioanisyl)phosphine 35542-36-0P,
Bisphenyl-4-thioanisylphosphine 74038-25-8P, Tris(4-thioanisyl)phosphine sulfide 147136-48-9P, Bis(4-thioanisyl)phenylphosphine 769952-66-1P 769952-68-3P
(in prepn. of phosphine sulfide monomers; phosphine sulfides and polymerizable compns. contg. phosphine sulfides)
- IT 104-95-0, 4-Bromothioanisole 644-97-3, Dichlorophenylphosphine 1079-66-9, Chlorodiphenylphosphine 3982-91-0, Thiophosphoryl chloride 7704-34-9, Sulfur, reactions 7719-12-2, Phosphorus trichloride
(in prepn. of phosphine sulfide monomers; phosphine sulfides and polymerizable compns. contg. phosphine sulfides)
- IT 109-72-8, n-Butyllithium, reactions 29364-29-2, Sodium 2-methyl-2-propanethiolate
(in prepn. of phosphine sulfide monomers; phosphine sulfides and polymerizable compns. contg. phosphine sulfides)
- IT **769952-65-0P 769952-67-2P 769952-69-4P**
(monomer; phosphine sulfides and polymerizable compns. contg. phosphine sulfides)
- IT **769952-70-7P**
(phosphine sulfides and polymerizable compns. contg. phosphine sulfides)
- IT **769952-71-8P** 770746-80-0P
(phosphine sulfides and polymerizable compns. contg. phosphine sulfides)
- IT **769952-65-0P 769952-67-2P 769952-69-4P**
(monomer; phosphine sulfides and polymerizable compns. contg. phosphine sulfides)
- RN 769952-65-0 ZCAPLUS
- CN Benzenethiol, 4,4',4''-phosphinothioylidynetris- (9CI) (CA INDEX NAME)



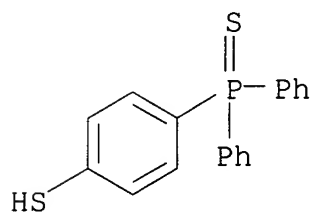
RN 769952-67-2 ZCAPLUS

CN Benzenethiol, 4,4'-(phenylphosphinothioylidene)bis- (9CI) (CA INDEX NAME)



RN 769952-69-4 ZCAPLUS

CN Benzenethiol, 4-(diphenylphosphinothioyl)- (9CI) (CA INDEX NAME)



IT **769952-70-7P**

(phosphine sulfides and polymerizable compns. contg. phosphine sulfides)

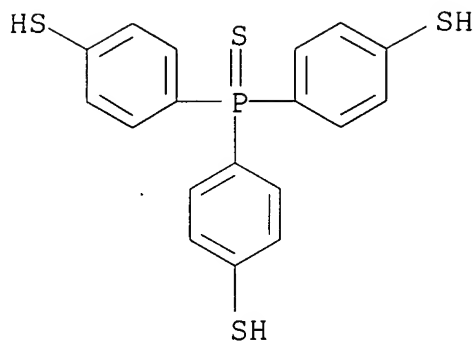
RN 769952-70-7 ZCAPLUS

CN Benzenethiol, 4,4',4''-phosphinothioylidynetris-, polymer with bis(isocyanatomethyl)benzene and 2,3-bis[(2-mercaptoethyl)thio]-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 769952-65-0

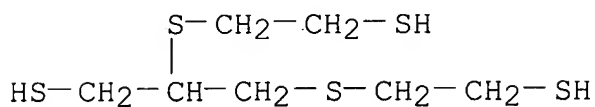
CMF C18 H15 P S4



CM 2

CRN 131538-00-6

CMF C7 H16 S5

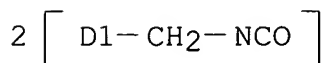
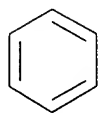


CM 3

CRN 25854-16-4

CMF C10 H8 N2 O2

CCI IDS



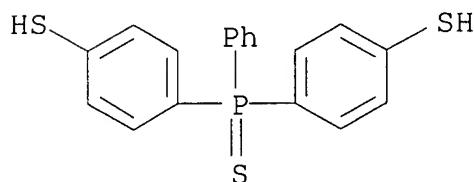
IT 769952-71-8P

(phosphine sulfides and polymerizable compns. contg. phosphine sulfides)

RN 769952-71-8 ZCAPLUS
 CN Benzenethiol, 4,4'-(phenylphosphinothioylidene)bis-, polymer with
 bis(isocyanatomethyl)benzene (9CI) (CA INDEX NAME)

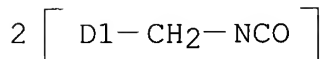
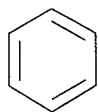
CM 1

CRN 769952-67-2
 CMF C18 H15 P S3



CM 2

CRN 25854-16-4
 CMF C10 H8 N2 O2
 CCI IDS



L7 ANSWER 2 OF 3 ZCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2001:541458 ZCAPLUS
 DN 135:351934
 ED Entered STN: 27 Jul 2001
 TI Synthesis of chelate complexes and the dichalcogen derivatives of
 the unsymmetrical diphosphine ligand Ph₂PNHC₆H₄PPh₂. Molecular
 structure of [PtCl₂(Ph₂PNHC₆H₄PPh₂)]·0.75dms·0.75CHCl₃
 3
 AU Aucott, Stephen M.; Slawin, Alexandra M. Z.; Woollins, J. Derek
 CS Department of Chemistry, University of St. Andrews, St. Andrews,
 Fife, KY16 9NB, UK
 SO Journal of the Chemical Society, Dalton Transactions (2001), (15),

2279-2287

CODEN: JCSDA; ISSN: 1472-7773

PB Royal Society of Chemistry

DT Journal

LA English

CC 78-7 (Inorganic Chemicals and Reactions)

Section cross-reference(s): 29, 75

OS CASREACT 135:351934

AB [M(.eta.3-C3H5)(L)]Cl (M = Pt or Pd and L = o-Ph2PNHC6H4PPh2), [MX2(L)] (M = Pt, X = Me, Cl, Br or I; M = Pd or Ni, X = Cl), [PtMeCl(L)], [Mo(CO)4(L)] and [(AuCl)2(L)] were synthesized. In all complexes except [(AuCl)2(o-Ph2PNHC6H4PPh2)], where the diphosphine acts as a bridging ligand between the two metal centers, a chelating coordination mode is obsd. The authors also prepd. and characterized the dichalcogen compds. o-Ph2P(E)NHC6H4P(E)Ph2 (E = O, S or Se) and found that the disulfide reacts cleanly with [PdCl2(PhCN)2] in CH2Cl2 or Na2[PdCl4] in EtOH with elimination of HCl to give the unusual neutral N-metalated species [PdCl(o-Ph2P(S)NC6H4P(S)Ph2-S,N,S)], which contains both S-P-C-C-N-Pd six and N-P-S-Pd four-membered metallacycles. The cationic species [Pd(PPh3)(o-Ph2P(S)NC6H4P(S)Ph2-S,N,S)][ClO4] was generated by the sequential addn. of 1st Ag[ClO4] followed by PPh3 to the neutral chloride. The mol. structure of [PtCl2(o-Ph2PNHC6H4PPh2)].cntdot.0.75DMSO.cntdot.0.75CHCl3, which reveals a puckered ring and displays H bonding interactions between the ligand amine proton and the O atom of the DMSO mol., was detd. by single crystal x-ray diffraction.

ST crystal structure palladium phosphinoaminophenylphosphine chelate; mol structure palladium phosphinoaminophenylphosphine chelate; phosphinoaminophenylphosphine dichalcogen deriv transition metal chelate prepn; platinum phosphinoaminophenylphosphine chelate prepn; palladium phosphinoaminophenylphosphine chelate prepn structure; gold phosphinoaminophenylphosphine dinuclear complex prepn; nickel phosphinoaminophenylphosphine chelate prepn; molybdenum phosphinoaminophenylphosphine chelate prepn

IT Transition metal complexes

((phosphinoamino)phenyl)phosphine chelates; prepn. and crystal structure of)

IT Crystal structure

Molecular structure

(of palladium chelate with ((phosphinoamino)phenyl)phosphine)

IT 12012-95-2 12080-32-9, Dichloro(1,5-cyclooctadiene)platinum 12107-56-1, Dichloro(1,5-cyclooctadiene)palladium 12145-48-1, Dibromo(1,5-cyclooctadiene)platinum 12266-72-7, (1,5-Cyclooctadiene)diiodoplatinum 12266-92-1, (1,5-Cyclooctadiene)dimethylplatinum 13820-53-6, Disodium tetrachloropalladate(2-) 14220-64-5, Bis(Benzonitrile)dichloropalladium 32216-28-7, Tetrakis((.mu.-.eta.2:.eta.1-allyl)(.mu.-

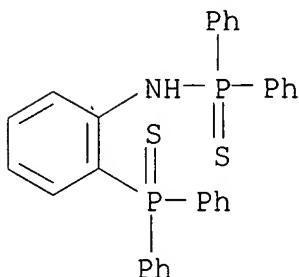
chloro)platinum) 39929-21-0, Chloro(tetrahydrothiophene)gold
 50978-00-2, Chloro(1,5-cyclooctadiene)(methyl)platinum 59967-36-1,
 Tetracarbonylbis(piperidine)molybdenum
 (coordinative substitution with ((phosphinoamino)phenyl)phosphine
)
 IT 238742-40-0, (2-((Diphenylphosphino)amino)phenyl)diphenylphosphine
 (coordinative substitutions with transition metal complexes)
 IT **370567-84-3P**, (2-(Diphenylphosphinothioylamino)phenyl)diphenylphosphine sulfide
 (prepn. and coordinative substitution with palladium complexes)
 IT 370567-89-8P
 (prepn. and crystal structure of)
 IT 370567-86-5P
 (prepn. and substitution of chloro by phosphine in)
 IT 370567-72-9P, (.eta.3-Allyl)((2-((diphenylphosphino)amino)phenyl)diphenylphosphine-P,P)platinum(1+) chloride 370567-73-0P,
 (.eta.3-Allyl)((2-((diphenylphosphino)amino)phenyl)diphenylphosphine-P,P)palladium(1+) chloride 370567-74-1P, Dichloro((2-
 ((diphenylphosphino)amino)phenyl)diphenylphosphine-P,P)platinum
 370567-75-2P, Dibromo((2-((diphenylphosphino)amino)phenyl)diphenylphosphine-P,P)platinum 370567-76-3P, ((2-
 ((Diphenylphosphino)amino)phenyl)diphenylphosphine-P,P)diiodoplatinum 370567-77-4P, ((2-((Diphenylphosphino)amino)phenyl)diphenylphosphine-P,P)dimethylplatinum 370567-78-5P,
 (SP-4-2)-chloro((2-((diphenylphosphino)amino)phenyl)diphenylphosphine-P,P)(methyl)platinum 370567-79-6P, Dichloro((2-
 ((diphenylphosphino)amino)phenyl)diphenylphosphine-P,P)palladium
 370567-80-9P, Dichloro((2-((diphenylphosphino)amino)phenyl)diphenylphosphine-P,P)nickel 370567-81-0P, Tetracarbonyl((2-
 ((diphenylphosphino)amino)phenyl)diphenylphosphine-P,P)molybdenum
 370567-82-1P, (.mu.-(2-((Diphenylphosphino)amino)phenyl)diphenylphosphine-P,P)bis(chlorogold) 370567-83-2P, (2-
 ((Diphenylphosphinyl)amino)phenyl)diphenylphosphine oxide
 370567-85-4P, (2-(Diphenylphosphinoselenoylamino)phenyl)diphenylphosphine selenide 370567-88-7P 370866-11-8P
 (prepn. of)

RE.CNT 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE

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- (3) Anderson, G; Inorg Synth 1990, V28, P60 ZCAPLUS
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- IT **370567-84-3P**, (2-(Diphenylphosphinothioylamino)phenyl)diphenylphosphine sulfide
 (prepn. and coordinative substitution with palladium complexes)
- RN 370567-84-3 ZCAPLUS

CN Phosphinothioic amide, N-[2-(diphenylphosphinothioyl)phenyl]-P,P-diphenyl- (9CI) (CA INDEX NAME)



L7 ANSWER 3 OF 3 ZCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1997:715668 ZCAPLUS
 DN 128:41551
 ED Entered STN: 12 Nov 1997
 TI Silver halide photographic material containing phosphine
 chalcogenide as sensitizer
 IN Hanyu, Takeshi
 PA Konica Co., Japan
 SO Jpn. Kokai Tokkyo Koho, 45 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03C001-09
 ICS G03C001-035; G03C001-06; G03C001-34; G03C001-83
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09281630	A2	19971031	JP 1996-91070	19960412

PRAI JP 1996-91070 19960412
 CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 09281630	ICM	G03C001-09
	ICS	G03C001-035; G03C001-06; G03C001-34; G03C001-83

AB Title material has an emulsion layer contg. Ag halide grains chem. sensitized in the presence of Q1Q2Q3P:X (Q1-3 = arom. group having substituents contg. O, S, and/or N, (substituted) heterocycle; X = Se, Te, S) and a hydrophilic colloid layer on a support. The

material, useful in x-ray photog. and printing platemaking, shows high sensitivity, high contrast, low fog, improved storage stability, and stable photog. properties under high temp. and high moisture conditions.

ST silver halide photog sensitizer phosphine chalcogenide;
arylphosphine telluride selenide sulfide photog sensitizer

IT Photographic films

Photographic sensitizers

(silver halide photog. material contg. organophosphine
chalcogenide sensitizer)

IT	199740-42-6	199740-43-7	199740-44-8	199740-45-9	199740-46-0
	199740-47-1	199740-48-2	199740-49-3	199740-50-6	199740-51-7
	199740-52-8	199740-53-9	199740-54-0	199740-55-1	199740-56-2
	199740-57-3	199740-58-4	199740-59-5	199740-60-8	199740-61-9
	199740-62-0	199740-63-1	199740-64-2	199740-65-3	199740-66-4
	199740-67-5	199740-68-6	199740-69-7	199740-70-0	

199740-71-1 199740-72-2 **199740-73-3**

199740-74-4

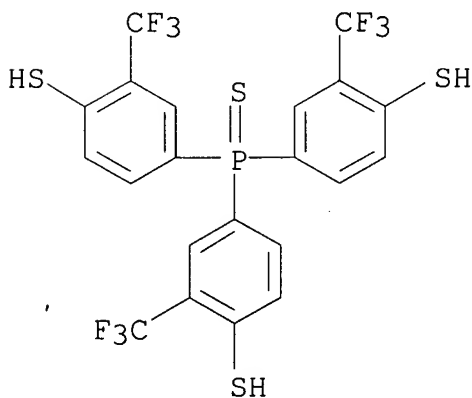
(silver halide photog. material contg. organophosphine
chalcogenide sensitizer)

IT **199740-71-1** **199740-73-3**

(silver halide photog. material contg. organophosphine
chalcogenide sensitizer)

RN 199740-71-1 ZCAPLUS

CN Benzenethiol, 4,4',4''-phosphinothioylidynetris[2-(trifluoromethyl)-
(9CI) (CA INDEX NAME)



RN 199740-73-3 ZCAPLUS

CN 5H-Tetrazole-5-thione, 1,1',1''-[phosphinothioylidynetris(5-methoxy-
3,1-phenylene)]tris[1,2-dihydro- (9CI) (CA INDEX NAME)

